

	Basement Impact Assessment for 26 Dartmouth Park Avenue NW5 1JN		15234

1.0 Introduction

- 1.1 This Basement Impact Assessment is produced for submission to Camden Council for the purpose of a planning application only and should not be used for any other purposes such as party wall awards.
- 1.2 This statement is to be read in conjunction with all Architects and Structural Engineers drawings. The latter are 15234-BIA1, BIA2, BIA3

2.0 Scope of Works

- 2.1 The proposed works consist of extending an existing basement to the rear of the property and around an open courtyard. The new space will enclose a gym and dining area.

3.0 Description of property and adjoining properties

- 3.1 The existing property is an end of terrace house and is generally constructed with timber floors and roof with masonry and stud walls and is in sound condition. The adjoining properties are similarly constructed.

4.0 Soil Conditions

- 4.1 A detailed site investigation will be carried out by Soil Consultants and their findings will be submitted separately. However the North London geological map shows the property to be in an extensive area of London clay and we do not expect the investigation to find anything different. Bearing capacities are likely to be at least 150kN/m² at the depth of excavation.

5.0 Structural proposals

- 5.1 The structural proposals are shown on drawings series 15234. These show the suggested underpinning sequence, temporary works to support the faces of excavated areas that will form the new basement together with typical structural details and sections.

6.0 Underpinning & Construction sequence

- 6.1 Deliveries, spoil removal and access will be from Dartmouth Park Avenue. The entrance will be manned throughout to ensure that there is no potential risk to pedestrians.
- 6.2 There will be a site hoarding and entrance gates to protect passers by.
- 6.3 Existing services including drainage will be protected through the construction period.

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- 6.4 Excavated spoil will be stored in the front of the property and behind the hoarding. It will be loaded into skips and transported for disposal.
- 6.5 Part of the flank wall of the existing property will be underpinned in a bit and missqsequence. Soil will be excavated in 1.0m maximum lengths. Temporary side shutters and propping will be installed to retain the soil and to provide protection to operatives as found necessary. The underpinning will be monitored by the structural engineer.
- 6.6 Retaining walls and a base slab will be installed to the rear and party wall faces of the extended basement. Temporary supports to retain the soil will be installed as excavation progresses. These will if required by the design be installed as a proprietary system such as Mabey.
- 6.7 As excavation progresses the affected areas of the existing basement structure will be broken up and removed.
- 6.8 Any existing foundation discovered will be broken up and removed from site to allow for the new construction.
- 6.9 The existing walls and floors will be temporarily propped with steel beam needles at regular intervals as necessary. Temporary concrete pad foundations may be required beneath the props or they may also be supported on underpin concrete already completed.
- 6.10 New concrete pad and strip foundations will be constructed where specified on the structural drawings. These will be incorporated in the basement slab.
- 6.11 New steel beams and stanchions will be installed where specified on the structural drawings. These will be supported on the underpin concrete or new foundations. Beams supported on existing masonry walls will bear on concrete or steel plate padstones. Bearing stresses will be kept to acceptable levels.
- 6.12 The top of installed steel beams will be dry packed to the underside of existing masonry and this will be made good as required.
- 6.13 Both foul and surface water drainage, sumps and pumps will then be installed. They will discharge into the existing sewer system.
- 6.14 Once the basement slab and retaining walls have achieved sufficient strength the horizontal propping will be removed.
- 6.15 A drained cavity layer waterproofing system will then be laid to the slab and walls.
- 6.16 An insulation layer will be placed on top of the drainage system on the slab and in front of the system on the walls.
- 6.17 Finally a screed layer will be laid on the finished basement slab.

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7.0 Potential Impact on adjoining properties.

7.1 The proposed basement extension will largely be formed by using an underpinning method constructed in sections no wider than 1000mm with no adjacent underpins constructed within a 72 hour period. This method of construction reduces the amount of potential ground movement and minimises the effects of settlement on adjoining properties. No movement is expected to the adjacent block of flats because the underpinning is too shallow and the block too far away to have an affect. The excavations to permit construction of the new retaining walls will be adequately supported during progress of the works which will also limit any potential movement.

An experienced contractor will be appointed who will undertake the works using good practices in accordance with the structural design and will follow all agreed method statements. He will install all temporary vertical and horizontal supports and the expected settlement will be zero. In practice some minor cracking may occur but this should be aesthetic as described in the BRE definition of damage. This has been borne out in the vast majority of past projects on similar properties.

The design and construction methodology as described above, deals with potential risks and ensures that the excavation and construction of the proposed basement will not affect the structural integrity of this and the adjoining properties.

8.0 Impact on existing and surrounding utilities, and infrastructure

8.1 Any local services on the property's land will be maintained during construction and re routed if necessary. Their exact location will not be known until work starts. However the impact will be negligible as these services will be maintained. If it is necessary to relocate or divert any utilities the contractor and design team will be under statutory obligation to notify the utility owner before works start. This will be so that they can assess the impact of the works and deal with any approvals.

9.0 Potential impact on drainage, foul and surface water levels and flows.

9.1 All existing drainage and sewer connections will be maintained throughout the construction works so there will be no impact on them. The proposed basement will remain as a single family residence and therefore there will be no significant increased discharge into the existing system. Also there will be no change in the amount of surface water discharged into the existing system.

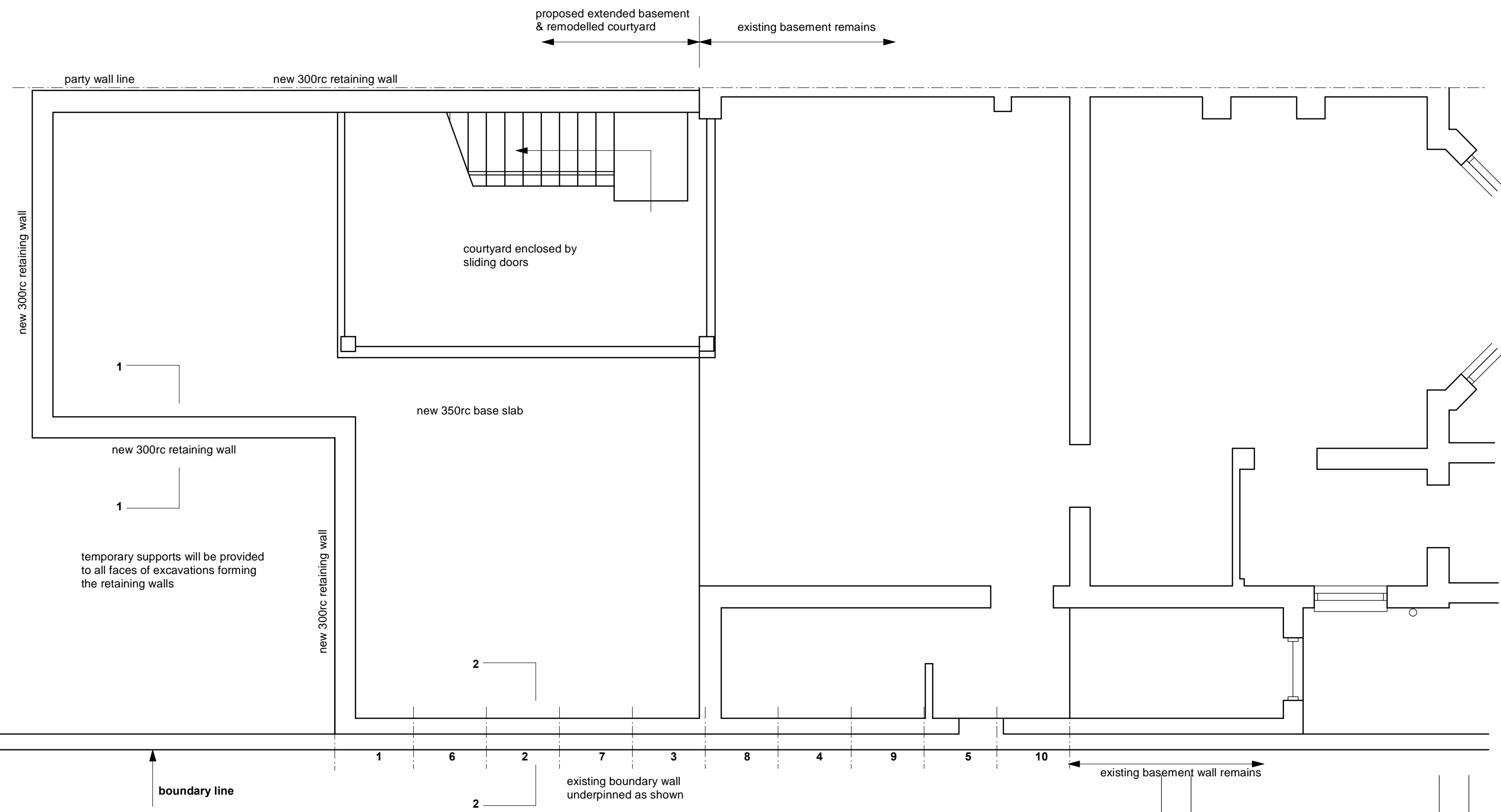
10.0 Potential impact on trees

10.1 We understand that the proposed basement is not within the zone of influence of any existing trees.

Prepared by

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BASEMENT PLAN

approx. position of adjacent block of flats to be confirmed

rev	amendment	date

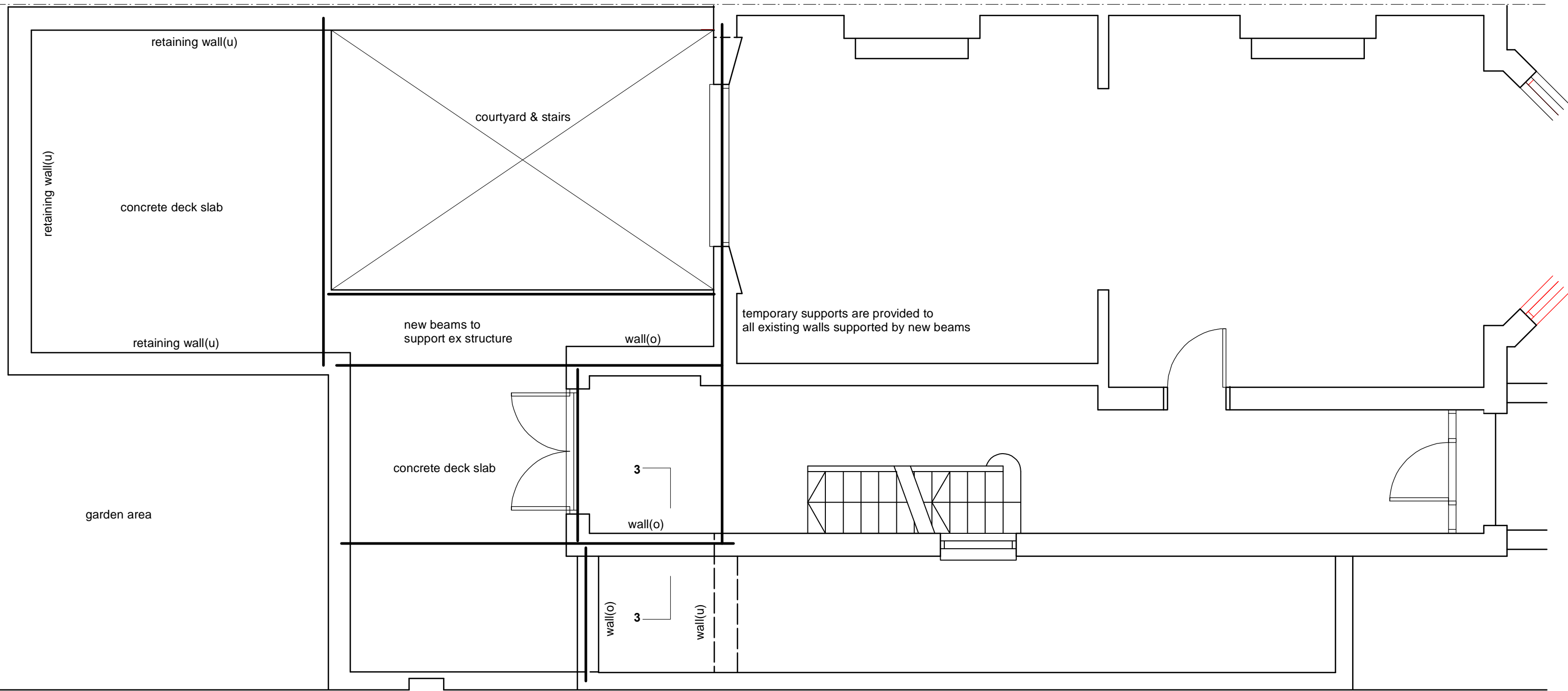
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Project Drawing No 15234-BIA1

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26 Dartmouth Park Avenue Scale 1:50 @ A3

Date January 2016



GROUND FLOOR PLAN

approx. position of adjacent block of flats to be confirmed

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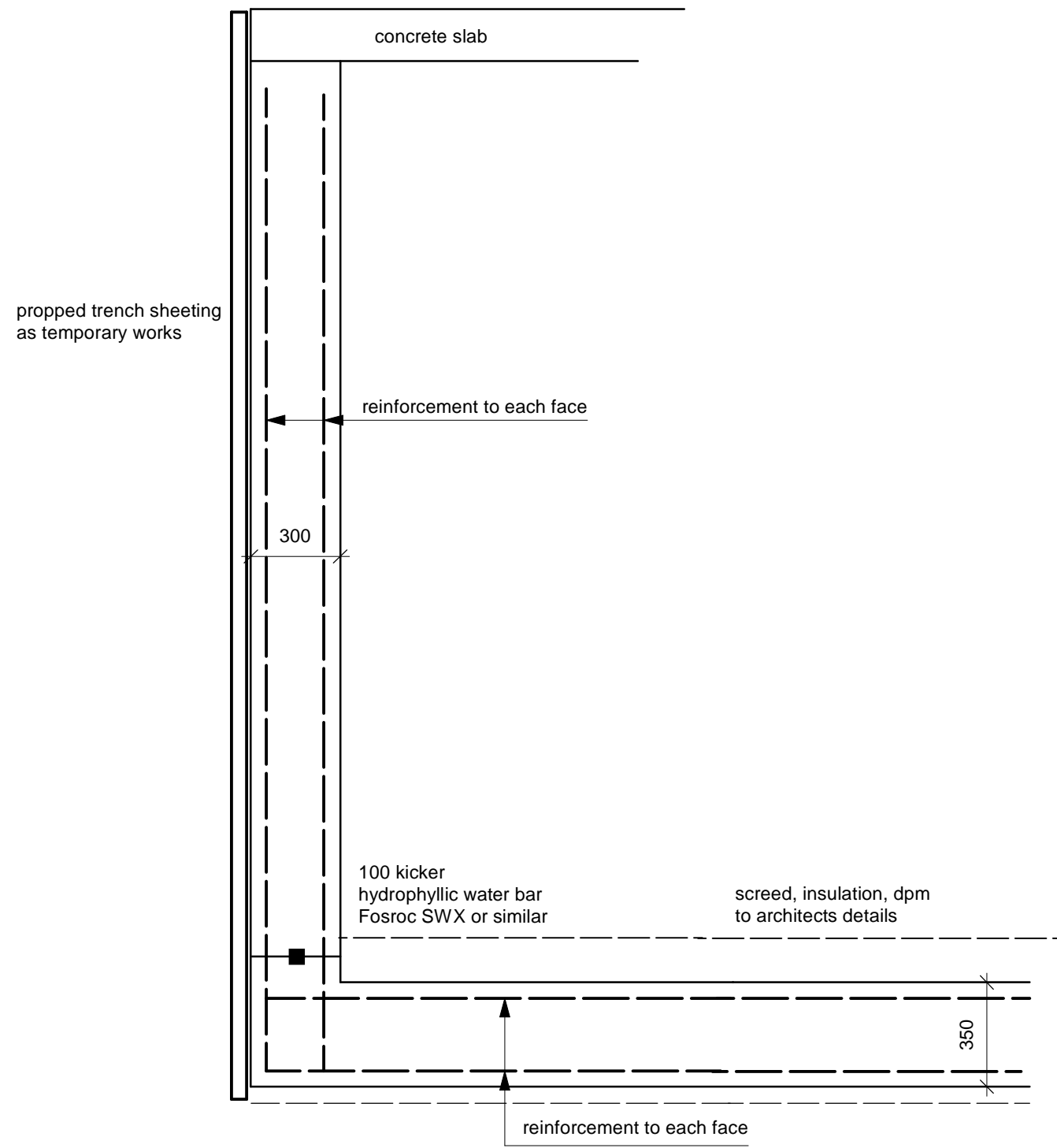
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Project Drawing No 15234-BIA2

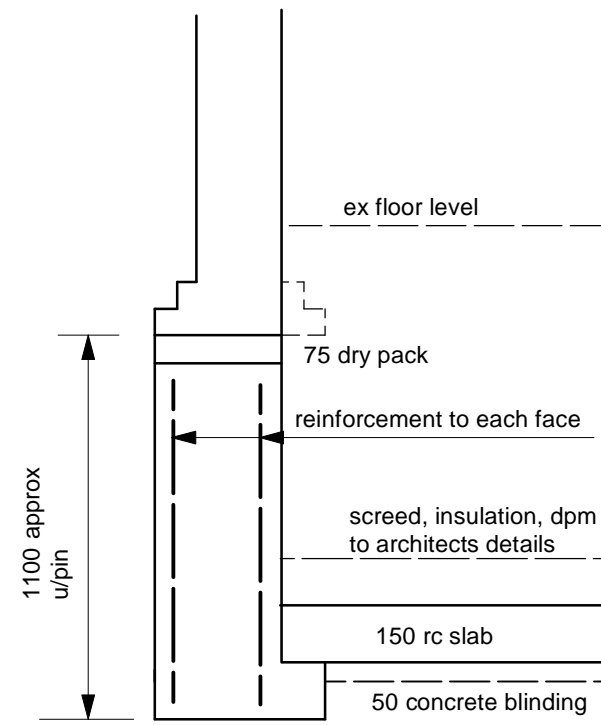
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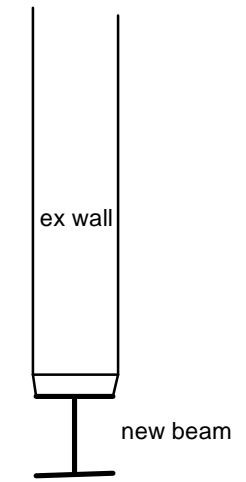
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SECTION 1-1



SECTION 2-2



SECTION 3-3

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Project Drawing No 15234-BIA3

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